

STATEMENT OF BASIS

as required by LAC 33:IX.2411, for draft Louisiana Pollutant Discharge Elimination System Permit No. LA0121410; AI 123306; PER20050001 to discharge to waters of the State of Louisiana as per LAC 33:IX.2311.

The permitting authority for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

- I. **THE APPLICANT IS:** Environmental Safety & Health Consulting Services, Inc.
Petroleum Wastewater Treatment Facility
Post Office Box 9217
Houma, LA 70364
- II. **PREPARED BY:** Todd Franklin
- DATE PREPARED:** January 10, 2006
- III. **PERMIT ACTION:** issue LPDES permit LA0121410, AI 123306; PER20050001

LPDES application received: May 17, 2005

EPA has not retained enforcement authority.

IV. **FACILITY INFORMATION:**

- A. The application is for the discharge of treated bilge water, stormwater, washdown water, and petroleum contact wastewater.
- B. The facility is located at 3510 Industrial Avenue A in Houma, Terrebonne Parish.
- C. The treatment facility consists of a biological treatment process called Wastebuster II.
- D. Outfall 001
- | | |
|---------------------|--|
| Discharge Location: | Latitude 29° 35' 45" North
Longitude 90° 40' 8" West |
| Description: | bilge water, stormwater, washdown water, and petroleum contact wastewater |
| Average Flow: | The average flow, according to the application, of the facility is 0.0432 MGD. |

V. **RECEIVING WATERS:**

The discharge is into an unnamed ditch; thence into the Intracoastal Waterway in segment 120304 of the Terrebonne Basin. This segment is listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Segment 120304 of the Terrebonne Basin are as indicated in the table below^{1/}:

Overall Degree of Support for Segment	Degree of Support of Each Use						
	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
Full	Full	Full	Full	N/A	Full	N/A	Full

^{1/}The designated uses and degree of support for Segment 120304 of the Terrebonne Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2004 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 120304 of the Terrebonne Basin, is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated October 21, 2005, from Watson (FWS) to Gautreaux (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

VII. HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit modification and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Mr. Todd Franklin
Permits Division
Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

IX. PROPOSED PERMIT LIMITS:

Subsegment 120304, Intracoastal Waterway-Houma to Larose, is listed on LDEQ's Final 2004 303(d) List as impaired for organic enrichment/low DO (EPA-Category 5) and nutrients (EPA-Category 5). To date no TMDLs have been completed for this waterbody. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by a TMDL. Until completion of TMDLs for the Terrebonne Basin, those suspected causes for impairment which are not directly attributed to the oily wastewater point source category have been eliminated in the formulation of effluent limitations and other requirements of this permit. Additionally, suspected causes of impairment which could be attributed to pollutants which were not determined to be discharged at a level which would cause, have the reasonable potential to cause or contribute to an excursion above any present state water quality standard were also eliminated.

Organic Enrichment / Low DO and Nutrients

Based on the size and nature of this discharge, this Department believes that there is little potential for this discharge to cause or contribute to the organic enrichment / low DO and nutrients impairments found in this subsegment. Therefore, no specific requirements shall be place into the permit to address these impairments.

The parameters listed in the EPA guidelines were compared to the same parameters used for LDEQ empirical limitations and the more stringent of the two values were screened against corresponding water quality standards. The more stringent values are being applied to Outfall 001.

The guidelines for the Centralized Waste Treatment Point Source Category are found in 40 CFR 437. This facility should fall into this point source category. This company uses their own vacuum trucks to pickup and transport wastewater from various locations to the facility. More specifically, this facility falls under the guidelines in 40 CFR 437.24. This facility is a new source and treats and discharges oily waste types only, such as bilge water, washdown water, and petroleum contact wastewater.

Final Effluent Limits:

OUTFALL 001

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Daily Maximum	Basis
TSS	---	30.6 mg/l	74.1 mg/l	40 CFR 437.24

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Daily Maximum	Basis
COD	---	250 mg/l	400 mg/l	Best Professional Judgement (BPJ) based on limitations for similar types of wastewaters
Oil and Grease	---	---	15 mg/l	BPJ based on limitations on similar discharges
Total Arsenic ¹	---	---	0.100 mg/l	LDEQ Empirical Numbers
Total Cadmium ¹	---	0.0102 mg/l	0.0172 mg/l	40 CFR 437.24
Total Chromium	---	---	0.150 mg/l	LDEQ Empirical Numbers
Total Cobalt	---	18.8 mg/l	56.4 mg/l	40 CFR 437.24
Total Copper ¹	---	0.0584 mg/l	0.139 mg/l	Water-Quality Based Limit
Total Lead ¹	---	0.0791 mg/l	0.187 mg/l	Water-Quality Based Limit
Total Mercury ¹	---	0.0000581 mg/l	0.000138 mg/l	Water-Quality Based Limit
Total Tin	---	0.165 mg/l	0.335 mg/l	40 CFR 437.24
Total Zinc ¹	---	---	1.0 mg/l	LDEQ Empirical Numbers
Bis (2-ethylhexyl) phthalate	---	0.101 mg/l	0.215 mg/l	40 CFR 437.24
Butylbenzyl phthalate	---	0.0887 mg/l	0.188 mg/l	40 CFR 437.24
Carbazole	---	0.276 mg/l	0.598 mg/l	40 CFR 437.24
n-Decane	---	0.437 mg/l	0.948 mg/l	40 CFR 437.24
Fluoranthene ¹	---	0.0268 mg/l	0.0537 mg/l	40 CFR 437.24
n-Octadecane	---	0.302 mg/l	0.589 mg/l	40 CFR 437.24

¹ If any individual analytical test result is less than the minimum quantification level (MQL) listed in Section X of this statement of basis, a value of zero (0) may be used for that individual result for the Discharge Monitoring Report (DMR) calculations and reporting requirements.

Other Effluent Limitations:

1) pH

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time. (Limits as established through BPJ considering BCT for similar waste streams in accordance with LAC 33:IX.5905.C.).

2) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

X **MINIMUM QUANTIFICATION LEVELS (MQL) OF VARIOUS TOXIC SUBSTANCES**

<u>VOLATILE ORGANIC CHEMICALS</u>	<u>Required MQL (µg/l)</u>	<u>EPA Test Method</u>
acrolein (107-02-08)	50	624
acrylonitrile (107-13-1)	50	624
benzene (71-43-2)	10	624
bromodichloromethane (dichlorobromomethane) (75-27-4)	10	624
bromoform (tribromomethane) (75-25-2)	10	624
carbon tetrachloride (56-23-2)	10	624
chlorobenzene (108-90-7)	10	624
chloroform (trichloromethane)	10	624
chloromethane (methyl chloride) (74-87-3)	50	624
1,1-dichloroethane (75-34-3)	10	624
1,2-dichloroethane (107-06-2)	10	624
1,1-dichloroethylene (75-35-4)	10	624
dichloromethane (methylene chloride) (75-09-2)	20	624
cis-1,3-dichloropropene	10	624
trans-1,3-dichloropropene	10	624
ethylbenzene (100-41-4)	10	624
para-dichlorobenzene*	---	----
1,1,2,2-tetrachloroethane (79-34-5)	10	624
tetrachloroethylene (127-18-4)	10	624
toluene (108-88-3)	10	624
1,1,1-trichloroethane (71-55-6)	10	624
trichloroethylene (79-00-5)	10	624
vinyl chloride (chloroethylene) (75-01-4)	10	624

<u>ACID EXTRACTABLE ORGANIC CHEMICALS</u>	<u>Required MQL (µg/l)</u>	<u>EPA Test Method</u>
2-chlorophenol (95-57-8)	10	625
3-chlorophenol	10	625
4-chlorophenol	10	625
2,4-dichlorophenol (120-83-2)	10	625
2,3-dichlorophenol	10	625
2,5-dichlorophenol	10	625
2,6-dichlorophenol	10	625
3,4-dichlorophenol	10	625
2,4-dinitrophenol (51-28-5)	50	625
pentachlorophenol (87-86-5)	50	625
phenol (108-95-2)	10	625
2,4,6-trichlorophenol (88-06-2)	10	625

<u>BASE/NEUTRAL EXTRACTABLE ORGANIC CHEMICALS</u>	<u>Required MQL (µg/l)</u>	<u>EPA Test Method</u>
anthracene (120-12-7)	10	625
benzidine (92-87-5)	50	625
bis(2-chloroethyl)ether (111-44-4)	10	625
bis(2-chloro-1-methylethyl)ether (39638-32-9)	10	625
bis(2-ethylhexyl)phthalate (117-81-7)	10	625
di-n-butyl phthalate (84-74-3)	10	625
1,3-dichlorobenzene (541-73-1)	10	625
1,2-dichlorobenzene (95-50-1)	10	625
1,4-dichlorobenzene (106-46-7)	10	625

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3,3-dichlorobenzidine (91-94-1)	50	625
diethyl phthalate (84-66-2)	10	625
dimethyl phthalate (131-11-3)	10	625
2,4-dinitrooluene (121-14-2)	10	625
1,2-dihenyhydrazine (122-66-7)	20	625
fluoranthene (206-44-0)	10	625
hexachlorobenzene (118-07-1)	10	625
hexachlorobutadiene (87-68-3)	10	625
hexachlorocyclopentadiene (77-47-4)	10	625
hexachloroethane (67-72-1)	20	625
isophorone (78-59-1)	10	625
nitrobenzene (98-95-3)	10	625
N-nitrosodimethylamine (62-75-9)	50	625
N-nitrosodiphenylamine (86-30-6)	20	625

PESTICIDES & PCB'S

	<u>Required MQL (ug/l)</u>	<u>EPA Test Method</u>
aldrin (309-00-2)	0.05	608
PCB's (Total)	1.0	608
gamma-BHC (Lindane, Hexachlorocyclohexane) (58-89-9)	0.05	608
chlordane (57-74-9)	0.2	608
4,4"DDD (TDE) (72-54-8)	0.1	608
4,4"DDE (72-55-9)	0.1	608
4,4"DDT (50-29-3)	0.1	608
dieldrin (60-57-1)	0.1	608
endosulfan I (alpha) (115-29-7)	0.1	608
endosulfan II (beta) (115-29-7)	0.1	608
endrin (72-20-8)	0.1	608
heptachlor (76-44-8)	0.05	608
methoxychlor*	---	----
2,3,7,8-tetrachlorodibenzo-p-dioxin (1764-01-6)	**	625
toxaphene (8001-35-2)	5.0	608
2,4-dichlorophenoxyacetic acid (2,4-D) (94-75-7)	10	509B
2-(2,4,5-trichlorophenoxy) propionic acid (2,4,5-TP, Silvex)	4	509B

METALS

	<u>Required MQL (ug/l)</u>	<u>EPA Test Method</u>
antimony (7440-36-0)	60	200.7
arsenic (7440-38-2)	10	206.2
barium*	---	----
beryllium (7440-41-7)	5	200.7
cadmium (7440-43-9)	1	213.2
chromium III (16065-83-1)	10	200.7
chromium VI (7440-47-3)	10	200.7
copper (7550-50-8)	10	220.2
lead (7439-92-1)	5	239.2
fluoride*	---	----
mercury (7439-97-6)	0.2	245.1
nickel (7440-02-0)	40	200.7
nitrate (as N)*	---	----
selenium (7782-49-2)	5	270.2
silver (7440-22-4)	2	272.2
thallium (7440-28-0)	10	279.2
zinc (7440-66-6)	20	200.7

<u>MISCELLANEOUS</u>	<u>Required MQL (µg/l)</u>	<u>EPA Test Method</u>
cyanide	20	335.2
total phenols	5	420.1

XI. PREVIOUS PERMITS:

There are no previous LWDPs, NPDES, or LPDES issued permits for this facility.

XII. ENFORCEMENT AND SURVEILLANCE ACTIONS:

A) Inspections

There have been no inspections performed at this facility as of November 9, 2005.

B) Compliance and/or Administrative Orders

A review of the files indicates that no enforcement actions have been administered against this facility.

C) DMR Review

There are no DMRs on file for this facility as of November 9, 2005.

XIII. ADDITIONAL INFORMATION:

Please be aware that the Department will be conducting a TMDL in the Terrebonne Basin scheduled for completion in 2007. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions as a result of the TMDL. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

The nearest drinking water intake, Houma Wastewater Treatment Plant, is located approximately three miles upstream from the discharge point(s). According to a fax received on 9/26/96 from Leslie Lemon of the Department of Health and Hospitals, Office of Public Health, there have been no toxic exceedences of drinking water Maximum Contaminant Levels at this drinking water intake. Also, because the discharge point is located downstream from the drinking water intake, no further requirements shall be placed into the permit.

The following **Monitoring Requirements, Sample Types, and Frequency of Sampling** are required in this permit.

<u>Effluent Characteristics</u>	<u>Monitoring Requirements</u>	
	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	1/month	Estimate
TSS	1/week	Grab
COD	1/week	Grab
Oil & Grease	1/week	Grab
All other parameters	1/month	Grab

XIV TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a permit for the discharge described in this Statement of Basis.

XV REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart B - "The LPDES Program," Louisiana Department of Environmental Quality, 2004.

GPO Access. Electronic Code of Federal Regulations (e-CFR). [Online] Available <http://www.gpoaccess.gov/index.html>, January 9, 2006.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Environmental Safety & Health Consulting Servides, Inc., Petroleum Wastewater Treatment Facility, February 1, 2005.